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FIPS PUB 91

FEDERAL INFORMATION PROCESSING STANDARDS PUBLICATION

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U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

MAGNETIC TAPE CASSETTES FOR INFORMATION INTERCHANGE, DUAL TRACK COMPLEMENTARY RETURN-TO-BIAS (CRB) FOUR-STATES RECORDING ON 3.81-mm (0.150-in) TAPE

CATEGORY: HARDWARE STANDARD
SUBCATEGORY: INTERCHANGE CODES AND MEDIA

C13.52:

U.S. DEPARTMENT OF COMMERCE, Malcolm Baldrige, *Secretary*
NATIONAL BUREAU OF STANDARDS, Ernest Ambler, *Director*

Foreword

The Federal Information Processing Standards Publication Series of the National Bureau of Standards is the official publication relating to standards adopted and promulgated under the provisions of Public Law 89-306 (Brooks Act) and under Part 6 of Title 15, Code of Federal Regulations. These legislative and executive mandates have given the Secretary of Commerce important responsibilities for improving the utilization and management of computers and automatic data processing in the Federal Government. To carry out the Secretary's responsibilities, the NBS, through its Institute for Computer Sciences and Technology, provides leadership, technical guidance, and coordination of Government efforts in the development of guidelines and standards in these areas.

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Abstract

This FIPS PUB announces the adoption of the American National Standard X3.59-1981, Magnetic Tape Cassettes for Information Interchange, Dual Track Complementary Return-to-Bias (CRB) Four-States Recording on 3.81-mm (0.150-in) Tape. This standard specifies the recorded characteristics for a magnetic tape cassette with data recorded on two tracks using complementary recordings and a return-to-bias method of encoding in order to provide for digital data interchange between information processing systems. This standard is one of a series of Federal Information Processing Standards implementing the Code for Information Interchange (FIPS 1-1) on flexible magnetic media.

Key words: communications; computers; data interchange; Federal Information Processing Standard; information processing systems; magnetic tape cassettes; magnetic tape recording; magnetic tape transports; standards.

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Announcing the Standard for

MAGNETIC TAPE CASSETTES FOR INFORMATION INTERCHANGE, DUAL TRACK COMPLEMENTARY RETURN-TO-BIAS (CRB) FOUR-STATES RECORDING ON 3.81-mm (0.150-in) TAPE

Federal Information Processing Standards Publications are issued by the National Bureau of Standards pursuant to section 111 (f) (2) of the Federal Property and Administrative Services Act of 1949, as amended, Public Law 89-306 (79 Stat. 1127), Executive Order 11717 (38 FR 12315, dated May 11, 1973), and Part 6 of Title 15 Code of Federal Regulations (CFR).

Name of Standard. Magnetic Tape Cassettes for Information Interchange, Dual Track Complementary Return-to-Bias (CRB) Four-States Recording on 3.81-mm (0.150-in) Tape (FIPS PUB 91).

Category of Standard. Hardware Standard, Interchange Codes and Media.

Explanation. This standard specifies the recorded characteristics for a 3.81-mm (0.150-in) wide magnetic tape cassette with data recorded on two tracks using complementary recordings and a return-to-bias method of encoding in order to provide for digital data interchange between information processing systems. This standard is one of a series of Federal Information Processing Standards implementing the Code for Information Interchange (FIPS 1-1) on flexible magnetic media.

Approving Authority. Secretary of Commerce.

Maintenance Agency. Department of Commerce, National Bureau of Standards (Institute for Computer Sciences and Technology).

Cross Index. American National Standard Magnetic Tape Cassettes for Information Interchange, Dual Track Complementary Return-to-Bias (CRB) Four-States Recording on 3.81-mm (0.150-in) Tape, X3.59-1981.

Related Documents.

a. American National Standard Code for Information Interchange (ASCII), X3.4-1977, FIPS PUBS 1-1 and 7.

b. American National Standard Code Extension Techniques for Use with the 7-Bit Coded Character Set of American National Standard Code for Information Interchange, X3.41-1974, FIPS PUB 35.

c. American National Standard Magnetic Tape Cassettes for Information Interchange, (3.810-mm [0.150-in] tape at 32 bpmm [800 bpi], PE), X3.48-1977, FIPS PUB 51.

d. American National Standard Additional Controls for Use with American National Standard Code for Information Interchange, X3.64-1979, FIPS PUB 86.

Applicability. This standard is applicable to the acquisition and use of all magnetic tape cassette recording and reproducing equipment employing 3.81-mm (0.150-in) wide magnetic tape with data recorded on two tracks with complementary recordings using a return-to-bias method of encoding. Federal information processing systems employing such equipment, including associated software, shall provide the capability to accept and generate recorded magnetic tape cassettes in compliance with the requirements set forth in this standard.

Specifications. This standard incorporates by reference the technical specifications of American National Standard Magnetic Tape Cassettes for Information Interchange, Dual Track Complementary Return-to-Bias (CRB) Four-States Recording on 3.81-mm (0.150-in) Tape, X3.59-1981.

Qualifications. None.

Implementation Schedule. All applicable equipment ordered on or after the date of the publication of this approved FIPS PUB in the *Federal Register* must be in conformance with this standard unless a waiver has been obtained in accordance with the procedure described below. Exceptions to this standard are made in the following cases:

a. For equipment installed or on order prior to the date of this FIPS PUB.

b. Where procurement actions are into the solicitation phase (i.e., Request for Proposals or Invitation for Bids have been issued) on the date of this FIPS PUB.

Waivers. Heads of agencies may request that the requirements of this standard be waived in instances where it can be clearly demonstrated that there are appreciable performance or cost advantages to be gained and that the overall interests of the Federal Government are best served by granting the requested waiver. Such waiver requests will be reviewed by and are subject to the approval of the Secretary of Commerce. The waiver request must address the criteria stated above as the justification for the waiver.

Forty-five days should be allowed for review and response by the Secretary of Commerce. Waiver requests shall be submitted to the Secretary of Commerce, Washington, DC 20230, and labeled as a Request for a Waiver to a Federal Information Processing Standard. No agency shall take any action to deviate from the standard prior to the receipt of a waiver approval from the Secretary of Commerce. No agency shall begin any process of implementation or acquisition of non-conforming equipment unless it has already obtained such approval.

Special Information. Federal standards and/or specifications for unrecorded magnetic tape cassettes will be developed and issued by the General Services Administration. Until such time as these are available, American National Standard X3.48-1977, Magnetic Tape Cassettes for Information Interchange (3.810-mm [0.150-in] Tape at 32 bpmm [800 bpi], PE), should be cited in Federal procurements.

Where to Obtain Copies. Copies of this publication are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. (Sale of the included specifications document is by arrangement with the American National Standards Institute.) When ordering, refer to Federal Information Processing Standards Publication 91 (FIPS-PUB-91), and title. Payment may be made by check, money order, or deposit account.